

Claimset

What is claimed is:

- 1 1. A method of viewing information, the method comprising,
2 employing one or more data objects contained within a data source,
3 employing a spatial paradigm for defining hierarchical relationships between said
4 data objects,
5 defining one or more hierarchical plates,
6 defining an appearance for each of said hierarchical plates, said appearance
7 containing a graphical representation of one or more of said data objects, and
8 locating in a virtual space each of said one or more hierarchical plates, based at
9 least in part on said spatial paradigm.
- 1 2. The method of claim 1, wherein the step of defining an appearance further
2 comprises, defining in a portion of said appearance of a first of said one or more
3 hierarchical plates an appearance of data objects associated with a second hierarchical
4 plate at a size relatively smaller than data objects contained in said first hierarchical plate.
- 1 3. The method of claim 1 further comprising employing raster graphics in defining
2 said graphical representation.
- 1 4. The method of claim 1 further comprising employing vector graphics in defining
2 said graphical representation.

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1 5. A method of viewing information, the method comprising,
2 employing one or more hierarchical plates, each one of said hierarchical plates
3 having an appearance, said appearance containing a graphical representation of one or
4 more data objects associated with said one of said hierarchical plates,
5 employing a hierarchical relationship in a virtual display space between said one
6 or more hierarchical plates,
7 displaying on a client, from an adjustable viewing perspective of a user, said
8 appearance of a first of one or more hierarchical plates, said appearance corresponding to
9 a current virtual location of said user, and
10 enabling said user to navigate said one or more hierarchical plates in a
11 substantially unrestricted fashion.

1 6. The method of claim 5, wherein said step of displaying on a client further
2 comprises displaying in a portion of said appearance of said first hierarchical plate an
3 appearance of data objects associated with a second hierarchical plate, located virtually
4 behind said first hierarchical plate in said virtual display space.

1 7. The method of claim 5 wherein said step of displaying in a portion of said
2 appearance of said first hierarchical plate further comprises displaying said appearance of
3 data objects associated with a second hierarchical plate at a size relatively smaller than
4 said data objects associated with said first hierarchical plate.

1 8. A method according to claim 5 further comprising,

2 defining virtual distances from each of said hierarchical plates to said user,
3 as said virtual distance from said first one of said hierarchical plates to said user
4 decreases, displaying a reduced number of said one or more of said data objects
5 associated with said first one of said hierarchical plates, and displaying more detail with
6 respect to said reduced number, and
7 as said virtual distance from said first one of said hierarchical plates to said user
8 increases, displaying an increased number of said one or more of said data objects
9 associated with said first one of said plates, and displaying less detail with respect to said
10 increased number.

1 9. A method according to claim 5 further comprising, defining said first hierarchical
2 plate to be translucent, and enabling said user to view through said first hierarchical plate
3 one or more data objects on a second one of said hierarchical plates located at a greater
4 virtual distance from said user than said first hierarchical plate.

1 10. A method according to claim 5 further comprising, defining said first hierarchical
2 plate to be opaque, and inhibiting said user from viewing through said first hierarchical
3 plate said one or more data objects associated with a second one of said hierarchical
4 plates located at a greater virtual distance from said user than said first hierarchical plate.

1 11. A method according to claim 5 further comprising,
2 defining a closest one of said one or more hierarchical plates as having a smallest
3 one of said virtual distances, and

4 employing said closest one of said hierarchical plates as said first one of said
5 hierarchical plates.

1 12. A method according to claim 5 further comprising,
2 organizing said one or more data objects on one of said one or more hierarchical
3 plates to be hierarchically equivalent.

1 13. A method according to claim 5 further comprising,
2 defining a virtual translational position of said user with respect to said one or
3 more of said data objects.

1 14. Enabling said user to change said translational position with respect to said one or
2 more of said data objects, and
3 determining said appearance of said one or more of said data objects, at least in
4 part, in dependence on said translational position.

1 15. A method according to claim 13 further comprising,
2 determining said one or more of said data objects, at least in part, in dependence
3 on said translational position of said user.

1 16. A method according to claim 8 further comprising, enabling said user to vary said
2 virtual distances with respect to each of said plates.

1 17. A method according to claim 16 further comprising,

2 defining a threshold smallest virtual distance at which said closest one of said
3 hierarchical plates is determined to be located virtually behind said user,
4 in response to said user navigating to said threshold smallest virtual distance,
5 ceasing to display said closest one of said hierarchical plates, and
6 defining a plate having a next smallest virtual distance to be said closest one of
7 said hierarchical plates.

1 18. A method according to claim 5 further comprising, providing a visual indication
2 to said user as to which of said hierarchical plates is being displayed.

1 19. A method according to claim 18 wherein the step of providing further comprises,
2 employing a breadcrumb trail.

1 20. A method according to claim 19 further comprising, enabling said user to select a
2 representation of one of said hierarchical plates displayed in said visual indication,
3 thereby changing said appearance to said selected one of said hierarchical plates.

1 21. A system for viewing information, the system comprising,
2 a computing device adapted to employ one or more data objects contained within
3 a data source and a spatial paradigm for defining hierarchical relationships between said
4 data objects, to define one or more hierarchical plates, and an appearance for each of said
5 hierarchical plates, said appearance containing a graphical representation of one or more

6 of said data objects, and to locate in a virtual space each of said one or more hierarchical
7 plates, based at least in part on said spatial paradigm.

1 22. The system of claim 21 further adapted to define in a portion of said appearance
2 of a first of said one or more hierarchical plates an appearance of data objects associated
3 with a second hierarchical plate at a size relatively smaller than data objects contained in
4 said first hierarchical plate.

1 23. The system of claim 21 further adapted to employ raster graphics in defining said
2 graphical representation.

1 24. The system of claim 21 further adapted to employ vector graphics in defining said
2 graphical representation.

1 25. A system of viewing information, the system comprising,
2 a computing device adapted to employ one or more hierarchical plates, each one
3 of said hierarchical plates having an appearance, said appearance containing a graphical
4 representation of one or more data objects associated with said one of said hierarchical
5 plates, and a hierarchical relationship in a virtual space between said one or more
6 hierarchical plates, to display on a client, from an adjustable viewing perspective of a
7 user, said appearance of a first of said one or more hierarchical plates, said appearance
8 corresponding to a current virtual location of said user, and to enable said user to navigate
9 said one or more hierarchical plates in a substantially unrestricted fashion.

1 26. The system of claim 25 further adapted to display in a portion of said appearance
2 of said first hierarchical plate an appearance of data objects associated with a second
3 hierarchical plate, located virtually behind said first hierarchical plate in said virtual
4 display space.

1 27. The system of claim 25 further adapted to display said appearance of data objects
2 associated with a second hierarchical plate at a size relatively smaller than said data
3 objects associated with said first hierarchical plate.

1 28. A system according to claim 25 further adapted to define virtual distances from
2 each of said hierarchical plates to said user, as said virtual distance from said first one of
3 said hierarchical plates to said user decreases, to display a reduced number of said one or
4 more of said data objects associated with said first one of said hierarchical plates, and
5 more detail with respect to said reduced number, and as said virtual distance from said
6 first one of said hierarchical plates to said user increases, to display an increased number
7 of said one or more of said data objects associated with said first one of said plates, and
8 less detail with respect to said increased number.

1 29. A system according to claim 25 further adapted to define said first hierarchical
2 plate to be translucent, and enabling said user to view through said first hierarchical plate
3 one or more data objects on a second one of said hierarchical plates located at a greater
4 virtual distance from said user than said first hierarchical plate.

1 30. A system according to claim 25 further adapted to define said first hierarchical
2 plate to be opaque, and inhibiting said user from viewing through said first hierarchical
3 plate said one or more data objects associated with a second one of said hierarchical
4 plates located at a greater virtual distance from said user than said first hierarchical plate.

1 31. A system according to claim 25 further adapted to define a closest one of said one
2 or more hierarchical plates as having a smallest one of said virtual distances, and to
3 employ said closest one of said hierarchical plates as said first one of said hierarchical
4 plates.

1 32. A system according to claim 25 further adapted to conceptually organize said one
2 or more data objects on each of said one or more hierarchical plates to be hierarchically
3 equivalent.

1 33. A system according to claim 25 further adapted to define a virtual translational
2 position of said user with respect to said one or more of said data objects, and to
3 determine said appearance of said one or more of said data objects, at least in part, in
4 dependence on said translational position.

1 34. To enable said user to change said translational position with respect to said one
2 or more of said data objects.

1 35. A system according to claim 33 further adapted to determine said one or more of
2 said data objects, at least in part, in dependence on said translational position of said user.

1 36. A system according to claim 28 further adapted to enable said user to vary said
2 virtual distances with respect to each of said plates.

1 37. A system according to claim 36 further adapted to define a threshold smallest
2 virtual distance at which said closest one of said hierarchical plates is determined to be
3 located virtually behind said user, in response to said user navigating to said threshold
4 smallest virtual distance, to cease to display said closest one of said hierarchical plates,
5 and to define a plate having a next smallest virtual distance to be said closest one of said
6 hierarchical plates.

1 38. A system according to claim 25 further adapted to provide a visual indication to
2 said user as to which of said hierarchical plates is being displayed.

1 39. A system according to claim 38 further adapted to employ a breadcrumb trail.

1 40. A system according to claim 38 further adapted to enable said user to select a
2 representation of one of said hierarchical plates displayed in said visual indication,
3 thereby changing said appearance to said selected one of said hierarchical plates.